UNIVERSITY OF JOHANNESBURG

PROGRAM : BACCALAUREUS TECHNOLOGIAE
PODIATRY

SUBJECT : **PODIATRIC MEDICINE 3 THEORY**

CODE : **HPM 32-1**

DATE : NOVEMBER 2016 EXAMINATION

DURATION : 180 MINUTES

WEIGHT : 50:50

TOTAL MARKS : 165 marks

EXAMINER : MS N. SITHOLE

MODERATOR : MR S. NTULI

NUMBER OF PAGES : 4 (Including the cover page)

INSTRUCTIONS :

- ANSWER ALL QUESTIONS
- MARKS WILL BE ALLOCATED FOR A CLEAR AND LOGICAL EXPOSITION OF THE ANSWER
- PLEASE HAND IN ALL QUESTION AND ANSWER PAPERS TO THE INVIGILATOR

QUESTION 1

A 14 year old female patient presents to the clinic with left forefoot pain. Patient report the pain is localised around the metatarsophalangeal joints and the pain is worse with activity and weight bearing.

On examination you notice: swelling and slight bruising on the dorsum of the foot, decreased range of motion with crepitus and pain of the 2nd metatarsophalangeal joint.

1.1 Provide a diagnosis for this patient. (3)

1.2 The condition diagnosed above in 1.1, belong to a group of related diseases involving growth disturbances of the epiphysis or apophysis. Briefly describe the pathophysiology of this condition. (5x1=5)

1.3 Give two differential diagnoses for the condition you diagnosed in 1.1 (2x2=4)

Metatarsalgia is a generic term used to denote dorsal or plantar, deep or superficial pain in the forefoot around the metatarsal.

1.4 Discuss metatarsalgia under the following headings:

a) Classification of metatarsalgia. (2x2=4)

b) Pathology of functional metatarsalgia. (10)

c) Diagnosis and management. (5x2=10)

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QUESTION 2

A 35 year old female, tennis player, presents to the clinic complaining of lateral ankle pain. Patient reports she remember "twisting" her ankle/leg during a game two days ago. She further reports that she feels her ankle feels unstable.

On examination you notice: moderate swelling and tenderness along the antero-lateral aspect of the ankle, restricted range of motion and mild instability during gait.

2.1 Provide a diagnosis for this patient. (3)

2.2 Identify three clinical tests you would perform to assist in confirming your diagnosis and indicate expected findings from each test. (3x3=9)

2.3 The condition diagnosed above in 2.1 may be divided into a three grade classification system. Briefly explain each grade of this condition. (3x5=15)

2.4 In which grade do you think this patient falls in and why? (5)

2.5 Outline your management for this patient. (10)

[42]

QUESTION 3

A 25 year old female patient, presents to the clinic complaining of pain and stiffness of both feet during activity. Pain is located on both the medial and lateral aspect of the feet. On examination you notice that the patient has a pes plano-valgus (flat foot) deformity and restricted ranges of motion of midtarsal and subtalar joints of both feet. Patient confirms having flat feet from birth however; the stiffness is new and seems to be progressively getting worse.

3.1 What is your diagnosis for this patient? (3)

3.2 Please, provide a rationale for the diagnosis you gave above in 3.1. (4)

3.3 In a paragraph of not more than five sentences, briefly describe the pathophysiology of the diagnosed condition above. (5x2=10)

3.4 What investigations would you send this patient for, in order to confirm your above stated diagnosis? (3x1=3)

3.5 What would be your expected findings for this patient's condition in each of the investigations you sent for above? (3x1=3)

[23]

QUESTION 4

A 35 year old long distance runner present to the clinic complaining of "shin pain" on both of his legs. Pain is described as dull aching and cramping along the anterior side of the tibia. Pain is minimal with normal walking but severe during exercise and decrease with rest.

On examination you notice: pain and tenderness along the anterior side of the tibia, compensated rear-foot varus and running the patient on the treadmill produced symptoms.

4.1 Provide 3 possible diagnoses for this patient. (3x3=9)

4.2 Tabulate differences between the three diagnoses you've given above. (3x4=12)

4.3 Identify and briefly explain how each of the following intrinsic and extrinsic risk factors can cause medial tibial stress syndrome: (4x4=16)

a) Hyperpronation.

b) Foot wear

c) Hip (internal) rotation

d) Leg length discrepancy

4.4 Briefly describe the pathophysiology of compartment syndrome. (10)

4.5 Briefly outline the management for this particular patient. (8)

[55]

QUESTION 5

5.1 Define the following conditions: (10)

a) Forefoot varus.
b) Chondromalacia patella
c) Osgood-Schlatter disease.
d) Popliteal Artery Entrapment Syndrome.
e) Tarsal Tunnel Syndrome.

[10]

Grand Total: 165 marks
